

ABSTRACT OF THE DISCLOSURE

An encoded patterned microbead of polymeric material, with an associated geometry, capable of linking to a ligand molecule, processes for fabricating shaped and patterned microbeads, a reader to read the patterned microbead, and methods to produce and read the shaped and patterned microbead are disclosed. A unique identifier is written to the encoded patterned microbead and the encoded patterned microbead is given an identifying shape according to one of several well-known techniques. A reader of the present invention, as well as conventional readers, read the shaped, encoded, patterned microbeads.